

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for the production of a metal container comprising:

at least one ironing die (1,2) having an insert (12) adapted to reduce the thickness of a container side wall by ironing;

at least one coolant die (3,4,5,6) adjacent the at least one ironing die and having an internal cooling cavity (8) for circulating coolant only within the coolant die adjacent the ironing insert (12) of the ironing die (1,2), and without allowing coolant into a bore of the at least one coolant die (3, 4, 5, 6).

2. (Previously Presented) The apparatus according to claim 1 in which the cooling cavity has an inlet (9) and an outlet (10), and the outlet includes a restrictor (11).

3. (Previously Presented) The apparatus according to claim 1 in which the coolant die (3,4,5,6) includes a vacuum port (14) for removal of debris.

4. (Previously Presented) The apparatus according to claim 1 in which an exit coolant die (6) includes an array of air jets (15) arranged around an inner surface of the exit coolant die to prevent debris from settling on a surface of the container side wall.

5. (Previously Presented) The apparatus according to claim 1 in which the cooling cavity (8) includes a portion which is inclined towards the adjacent die insert (12) to form a cooling face (18).

6. (Previously Presented) The apparatus according to claim 5 including means for biasing the cooling face (18) against the ironing die.

7. (Previously Presented) The apparatus according to claim 6 in which the cooling face (18) is a substantially annular piston (17) which is resiliently mounted on the coolant die, and the biasing means is operative for activating the annular piston by utilizing cooling fluid pressure.

8. (Previously Presented) The apparatus according to claim 1 including a ram (20) having a cooling tube assembly (30) at one end and a punch (50) at an opposite end, and the punch being connected to the ram by a ram spigot (25).

9. (Previously Presented) The apparatus according to claim 8 in which a cooling fluid inlet is formed partly between inner and outer concentric tubes (31,32) of the cooling tube assembly (30) and partly between an axial extension of the inner tube (31) of the cooling tube and inside of the ram spigot (25).

10. (Previously Presented) The apparatus according to claim 9 including a cavity (26) adjacent a punch nose (21) of the punch (50) which is connected to the cooling fluid inlet by at least one hole (22), the cavity (26) being connected to a cooling fluid outlet by at least one hole (28); and the cooling fluid outlet being formed (a)

between the punch and the outside of the ram spigot, (b) by at least one hole in the body of the ram and (c) between the outer tube (32) of the cooling tube assembly (30) and the inside of the ram (20).

11. (Previously Presented) The apparatus according to claim 1 including a tubular assembly (60) for guiding a ram (20) along its bore, and the assembly having a fluid inlet (62), a fluid outlet and grooves (63) around the surface of the bore for passage of cooling fluid around the outside of the ram (20).

12. (Previously Presented) The apparatus according to claim 2 in which the coolant die (3,4,5,6) includes a vacuum port (14) for removal of debris.

13. (Previously Presented) The apparatus according to claim 1 wherein said internal cooling cavity (8) includes a radially innermost annular channel defined at least in part by an innermost imperforate annular wall defining said bore.

14. (Previously Presented) The apparatus according to claim 13 wherein said radially innermost annular channel is angled towards the adjacent die insert (12) to form a cooling face (18).

15. (Previously Presented) The apparatus according to claim 2 wherein said internal cooling cavity (8) includes a radially innermost annular channel defined at least in part by an innermost imperforate annular wall defining said bore.

16. (Previously Presented) The apparatus according to claim 15 wherein said radially innermost annular channel is angled towards the adjacent die insert (12) to form a cooling face (18).

17. (Previously Presented) The apparatus according to claim 3 wherein said internal cooling cavity (8) includes a radially innermost annular channel defined at least in part by an innermost imperforate annular wall defining said bore.

18. (Previously Presented) The apparatus according to claim 17 wherein said radially innermost annular channel is angled towards the adjacent die insert (12) to form a cooling face (18).

19. (Previously Presented) The apparatus according to claim 4 wherein said internal cooling cavity (8) includes a radially innermost annular channel defined at least in part by an innermost imperforate annular wall defining said bore.

20. (Previously Presented) The apparatus according to claim 19 wherein said radially innermost annular channel is angled towards the adjacent die insert (12) to form a cooling face (18).